

BEFORE THE
POLLUTION CONTROL HEARINGS BOARD
STATE OF WASHINGTON

IN THE MATTER OF)
JOE LAVERGNE, A. J. CORVIN)
and CLARY HOLM,)
Appellants,)
v.)
STATE OF WASHINGTON,)
DEPARTMENT OF ECOLOGY,)
Respondent.)

PCHB Nos. 99 and 455-A

FINAL FINDINGS OF FACT,
CONCLUSIONS OF LAW AND ORDER

This matter having come on for hearing before the Pollution Control Hearings Board of the State of Washington, Richard B. Sanders appearing for appellants (LeRoy B. Crest having withdrawn his appeal), and Charles W. Lean, Assistant Attorney General, appearing for respondent, and the Board having considered the evidence, briefs, stipulations, argument of counsel and exceptions filed on December 13, 1974, hereby enters its

FINDINGS OF FACT

1.

Respondent issued an administrative order, dated May 27, 1971, to the Commissioners of Pierce County under Department of Ecology Docket No. DE 71-112. This order became effective on October 1, 1971, and is incorporated herein by reference as Exhibit "A".

On or about August 27, 1973, respondent issued an administrative order, Docket No. DE 73-172, to the Commissioners of Pierce County replacing and rescinding the previous order, Docket No. 71-112. This order is attached hereto and incorporated herein by reference as Exhibit "B".

On March 29, 1974, respondent issued administrative order DE 74-57 to the Commissioners of Pierce County amending the previous order, Docket No. DE 73-172. This order is attached hereto and incorporated herein as Exhibit "C".

2.

Administrative order 71-112 issued by respondent indicated that it would remain in effect until "the Department of Ecology is in receipt of acceptable assurances to the effect that the sewage general plan for the Chambers-Clover Creek Basin is being implemented as previously approved . . ." A witness from the Department testified that "acceptable assurances" meant primarily a positive assurance of financing.

3.

By a letter dated September 29, 1971, from James P. Behlke to the Commissioners of Pierce County the words "Chambers-Clover Creek Basin" as used in the order No. 71-112 were defined to mean that area within

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the drainage basin boundary on plat 5 of the Chambers-Clover Creek Basin sewage general plan, (Kennedy Engineers, 1969), together with that area within the sewage area boundary which lies to the south of the drainage basin boundary and west of Interstate 5, and that portion of American Lake Gardens which lies within the service area boundary.

4.

In issuing its order under Docket No. DE 71-112, respondent followed the procedures of RCW 90.48.120 with respect to Pierce County, but did not serve any formal or statutory notice of its order upon appellants. On August 27, 1973, copies of Order DE 73-172 were mailed certified mail to the Pierce County Commissioners; however, no formal or statutory notice of the order was served upon appellants.

On or about March 29, 1974, Order No. DE 74-57 was mailed certified mail to the Pierce County Commissioners; however, no formal or statutory notice of that order was served upon appellants.

5.

Appellants initiated this case by filing a notice of appeal with the Pollution Control Hearings Board, received March 8, 1972. LeRoy B. Crest withdrew his appeal April 12, 1973.

Appellants filed timely notice of appeal of the Department of Ecology's second order, Docket No. 73-173 - said appeal being assigned Cause No. PCHB 455-A.

Thereafter, the Pollution Control Hearings Board, acting upon stipulation, consolidated PCHB Nos. 99 and 455-A and further ordered, adjudged and decreed

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1 ". . . That consideration of Department of Ecology order
2 No. 74-57 is incorporated in this consolidated cause in
3 all respects without the necessity of appellants herein
4 filing an additional 'notice of appeal'."

5 6.

6 Appellants all own property or have economic interests within
7 the area affected by the Department's order.

8 7.

9 There are in excess of 80,000 people living within the area
10 affected by the Department's order, with the population projected to
11 increase. The large majority of these people dispose of their wastes
12 through individual septic tanks. This area is the second largest urban
13 area without a sewer system in the United States.

14 8.

15 Septic tanks, by their design, rely upon the surrounding soils
16 to purify or remove a significant portion of the contaminants present
17 in domestic sewage.

18 9.

19 There are two geologic units which affect septic tank operation in
20 the area in question: the Vashon till, and the Steilacoom gravels.
21 The till underlies much of East Parkland, Midland, Fircrest, part of
22 University Place, and the area around Lake Louise. There are isolated
23 outcroppings of till scattered throughout the rest of the basin.
24 Steilacoom gravels are located in most of the Lakewood area, West
25 Parkland, American Lake, and the southern part of University Place.

26 10.

27 The Vashon till and Steilacoom gravels begin immediately below a

topsoil zone ranging approximately from one to four feet in depth. The gravels, where found, range from a few feet to fifty feet in depth, and are underlain by till. Both geologic units are then underlain with alternating layers of relatively permeable and impermeable types of material. The impermeable zones (including the Vashon till) are broken in places, which allows water from at or near the surface to permeate into lower ground water zones.

11.

The Vashon till is a very impermeable "hard pan" lying generally one to two feet beneath the ground surface. Septic tank effluent will generally not penetrate this till, but will run along on top of it until it intercepts streams or ditches, or until it reaches a thicker section of soil capable of absorbing it. During rainy weather the shallow topsoil may become saturated, resulting in surfacing septic tank effluent.

12.

The Steilacoom gravels are very permeable - the most permeable formation in the Puget Sound Region. Septic tank effluent entering this formation will move downward until it hits the water table, and will then follow the gradient of the water table. Steilacoom gravels facilitate a rapid movement of ground water without the degree of natural purification provided by other types of soils.

13.

The amount of total coliform bacteria present in waters is generally accepted by scientists and public health officials as an index of the probability of human fecal contamination of those waters.

Coliform bacteria do exist in animal intestinal tracts, and to a

1 lesser extent on the ground, but these "natural" sources of coliform
2 will rarely result in surface water measurements exceeding an average
3 of 50/100 milliliters (ml).

4 14.

5 Disease causing bacteria and viruses can be present in the human
6 intestinal tract, and may be transmitted by water if such water is
7 contaminated by human wastes. The potential of this type of disease
8 transmission is a matter of serious concern to public health officials.

9 15.

10 Numerous septic tank failures have occurred in East Parkland and
11 Midland, with the result that human sewage has entered roadside ditches
12 or has reached the surface of the ground. These conditions are widespread,
13 were first documented in March, 1971, and continue at present. This
14 situation constitutes a grave health hazard.

15 16.

16 Septic tank failures; i.e., surfacing of effluent, have occurred at
17 various other locations within the Chambers Creek-Clover Creek Basin
18 outside the East Parkland-Midland area. These are associated, for the
19 most part, either with isolated outcroppings of till material, or with
20 areas where the water table lies at or near the surface of the ground
21 during parts of the year.

22 17.

23 The mean coliform counts for the major creeks within the subject
24 area are well above the applicable water quality standards. The mean
25 total coliform/100 ml for Clover Creek varies from 1500 at Waller Road
26 to 3400 near the Creek's entry into Lake Steilacoom. Ponce De Leon

Creek shows a mean coliform count of 1700/100 ml; Flett Creek has a mean of 5000; Leach Creek, a mean of 7000; and Chambers Creek, near its mouth, a mean of 1700. Contamination from septic tanks is a major cause of the presence of total coliform within these waters.

18.

The total coliform counts for Clover Creek, Chambers Creek, and Ponce De Leon Creek have noticeably increased since 1969.

19.

Total coliform counts on the lakes within the area may be depressed because certain types of algae are known to be toxic to coliform bacteria. It is not known whether these algae are toxic to other types of pathogenic bacteria or viruses.

20.

Total coliform counts on Lake Louise are far in excess of water quality standards. Available data from Carp Lake also shows coliform counts in excess of water quality standards. Lake Steilacoom also exceeds water quality standards, but the counts are lower than those for Lake Louise. Total coliform for American Lake and Gravelly Lake do not exceed water quality standards. Septic tank effluent is a major cause of the total coliform counts in Lake Louise, Carp Lake and Lake Steilacoom.

21.

Lake Louise was posted as unsafe for swimming by the Tacoma-Pierce County Health Department in the summer of 1972.

22.

The Steilacoom gravels allow a rapid transmission of ground water,

1 together with any contamination present therein. There is one report
2 which indicates that chlorides artificially introduced into the ground
3 water travelled at a rate of over 300 feet/day.

4 23.

5 Shallow wells within the subject area have been contaminated by
6 coliform bacteria. Incidences of such contamination began in 1941 and
7 have continued to the present. Septic tank effluent is a major cause
8 of this contamination. Use of the shallow ground waters for drinking
9 water has now been largely discontinued.

10 24.

11 The United States Public Health Service standard for coliform
12 bacteria in drinking water is essentially zero, although a low percentage
13 of positive readings is allowed to account for sampling errors.

14 25.

15 Domestic water for much of the area in question is now supplied
16 by the Lakewood Water District and Parkland Water District from deeper
17 wells (27 wells varying in depth from 158 to 1,064 feet).

18 26.

19 Ground water in the deeper aquifers underlying the subject area is
20 recharged by percolation from the surface and from the shallow ground
21 waters.

22 27.

23 The presence of trace amounts of detergents, which do not naturally
24 occur in ground waters, and the fact that chlorides increase with the
25 pumping rates, indicate that many of the Lakewood Water District wells
26 are pumping water which originated at or near the surface.

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28.

Viruses are smaller than bacteria, and less subject to be screened out by the soil. Some viruses have a long life, and may be transmitted by ground water.

29.

Certain types of viruses, such as the hepatitis virus, will survive the degree of chlorination presently provided by the Lakewood and Parkland Water Districts.

30.

Water samples taken from the lines of the Lakewood Water District after chlorination have occasionally shown positive readings of coliform bacteria in excess of public health standards.

31.

The continued use of septic tanks in the densely populated portions of the subject area, which contaminates the shallow ground waters, while the deeper aquifers below are being used for public water supplies poses a health hazard. The degree of hazard will increase as wastes disposed by septic tanks increases.

32.

Public health officials consider septic tanks as, at best, an interim means of disposing of domestic wastes, not suited for permanent use in a heavily populated urban area.

33.

Lake Steilacoom is a eutrophic lake - that is its nutrient content is high and its natural aging process is accelerated. The high nutrient load is caused by inflow from Clover Creek, together with an uncertain

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1 contribution from the shallow ground waters. Septic tank effluent
2 contributes to the nutrients from both sources.

3 34.

4 The other lakes within the subject area cannot be characterized as
5 eutrophic upon the basis of the available data; however, nutrient
6 contributions from ground water could upset the natural balance of these
7 lakes. The likelihood that this would happen would be increased by the
8 installation of additional septic tanks in the vicinity of these lakes.

9 35.

10 There is no area of appreciable size within the area where Pierce
11 County is prohibited by respondent's order from issuing new septic tank
12 permits where new septic tanks could be installed without increasing
13 the existing public health hazard.

14 36.

15 The most economical way of collecting, treating, and disposing of
16 sewage for the subject area is a single sewer system discharging treated
17 effluent into Puget Sound.

18 37.

19 Topographical considerations make the subject area physically suited
20 for a single sewer system.

21 38.

22 A plan for a single sewer system capable of serving the subject area
23 exists and has been approved by respondent. This plan, the Chambers Creek-
24 Clover Creek Basin Sewerage General Plan (Kennedy Engineers, 1969), would
25 provide a sewer system for the area at costs and assessment rates
26 comparable with those of other similar systems in the state. This plan

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contains a system reflecting known, available, and reasonable technology.

39.

Pierce County, acting under county ordinances and regulations adopted thereunder, requires a permit from the county to construct any septic tank within the subject area. Although permits may be denied for individual lots based upon their unsuitability for septic tanks under the county standards, the county has not closed any part of the area to further septic tank installation.

40.

Pierce County's standards relating to septic tank location and installation, as applied by the county, have not prevented widespread pollution in the subject area; nor is it to be expected that these standards will be sufficient to prevent future increases in the levels of pollution without the restraints contained in respondent's order.

41.

Real property owned by appellant Joe LaVergne located at 1300 - 160th Street East within the subject area meets Pierce County standards for percolation as set forth in Pierce County Resolution 20-91.

42.

There is no evidence in the record that any of the appellants have been deprived of all reasonable uses of their property by respondent's order.

43.

Any Conclusion of Law hereinafter recited which should be deemed a Finding of Fact is hereby adopted as such.

From these Findings the Pollution Control Hearings Board comes to

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CONCLUSIONS OF LAW AND ORDER

1 | these

2 | CONCLUSIONS OF LAW

3 | 1.

4 | Respondent's predecessor agency, the Water Pollution Control
5 | Commission, acting pursuant to RCW 90.48.035, has adopted regulations
6 | establishing water quality standards applicable to the surface waters of
7 | the area in question. The applicable water quality criteria are set
8 | forth in WAC 372-64-030, relating to waters of "Lake Class" and "Class A
9 | Excellent". These standards, as applied to the surface waters of the
10 | area in question, are reasonable and are consistent with the policy,
11 | intent and purposes of chapter 90.48 RCW.

12 | 2.

13 | Conditions existing in Chambers Creek, Clover Creek, Flett Creek,
14 | Leach Creek, Ponce De Leon Creek, Lake Louise, Carp Lake, and Lake
15 | Steilacoom exceed the water quality criteria contained in WAC 372-64-030
16 | (1)(c)(1) and (3)(c)(i) which provide: "Total Coliform Organisms shall
17 | not exceed median values of 240 with less than 20% of samples
18 | exceeding 1,000 when associated with any fecal source." Any person
19 | causing such a violation of water quality standards is violating the
20 | provisions of chapter 90.48 RCW.

21 | 3.

22 | Conditions existing in Chambers Creek, Clover Creek, Flett Creek,
23 | Leach Creek, and Ponce De Leon Creek exceed the standard provided by
24 | WAC 372-64-030(3)(c)(vii) which provides in part: "Toxic, Radioactive
25 | or Deleterious Material Concentrations shall be below those of public
26 | health significance, . . . or which may adversely affect any water use.

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Any person causing such a violation of water quality standards is violating the provisions of chapter 90.48 RCW.

4.

The conditions in Lake Louise, Carp Lake, and Lake Steilacoom exceed the standard provided by WAC 372-64-030(1)(c)(vii) which reads: "Toxic Radioactive or Deleterious Material Concentrations shall be less than those which may affect public health, the natural aquatic environment, or the desirability of the water for any usage." Any person causing such a violation of water quality standards is violating the provisions of chapter 90.48 RCW.

5.

The conditions in Lake Steilacoom exceed the standard provided by WAC 372-64-030(1)(c)(viii) which provides: "Aesthetic Values shall not be impaired by the presence of materials or their effects, excluding those of natural origin, which offend the senses of sight, smell, touch or taste." Any person causing such a violation of water quality standards is violating the provisions of chapter 90.48 RCW.

6.

The evidence indicates that drainage ditches, storm drains, and standing waters not in natural watercourses are being contaminated with septic tank effluent in East Parkland, Midland, and other locations scattered throughout the area in question. This situation constitutes pollution within the meaning of chapter 90.48 RCW, in that there are discharges which will, or are "likely to create a nuisance or render such waters harmful, detrimental or injurious to the public health, safety or welfare, . . . " (RCW 90.48.020).

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7.

Septic tank discharges have contaminated the shallow ground waters within the subject area to the extent that these waters are, or are likely to be harmful, detrimental, or injurious to public health, safety or welfare. This is pollution within the meaning of chapter 90.48 RCW. Continued discharges of septic tank effluent in increasing amounts is likely to pollute the deeper ground waters within the basin.

8.

Pierce County is a "person" within the definitions of chapter 90.48 RCW.

9.

By undertaking to regulate the installation of septic and sewer systems within the subject area, Pierce County is required to conduct its regulation in such a manner as will not cause, permit, suffer or allow discharges which will cause or tend to cause pollution within the meaning of chapter 90.48 RCW.

10.

Septic tanks and other systems authorized by Pierce County have caused or tended to cause pollution within the subject area. Continued installation of septic tanks and the other systems regulated by respondent's order is likely to cause pollution within the subject area.

11.

Respondent, as statutory successor to the Water Pollution Control Commission, is authorized to control and prevent pollution of the waters of the State of Washington as provided in chapter 90.48 RCW.

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12.

Respondent is directed by RCW 90.54.020 to manage the waters of the state in such a manner as will prevent reductions in the existing quality thereof and insure that "all wastes and other materials and substances proposed for entry into said waters shall be provided with all known, available, and reasonable methods of treatment prior to entry." (see also RCW 90.52.040) Under the circumstances affecting the area in question, septic tanks do not meet the standard of "all known, available, and reasonable methods of treatment" of domestic sewage.

13.

Pierce County's continued issuance of septic permits and other permits in excess of the limitations provided by respondent's order, Docket No. DE 71-112, would constitute a violation of the provisions of chapter 90.48 RCW; therefore, respondent's issuance of an administrative order is authorized by RCW 90.48.120.

14.

The order issued by respondent under Docket No. DE 71-112, given the circumstances of this case, is reasonable both with respect to the substantive provisions thereof and with respect to the scope of its geographic effect.

15.

Respondent met the procedural requirements of RCW 90.48.120 in issuing the order in question.

16.

Respondent was not required by any statute to provide any formal or actual notice of its order to appellants or other individuals within the

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1 affected area.

2 17.

3 Having been afforded a lengthy de novo hearing in this appeal, and
4 the matter being one involving public health, appellants have not been
5 denied procedural due process.

6 18.

7 Appellants' rights with respect to uses they may make of their
8 property are not absolute, but are subject to reasonable regulation under
9 the police power. Appellants have not carried their burden of showing
10 that the effect of respondent's order is to deprive them of property
11 without due process.

12 19.

13 Respondent presented evidence greater than that required to establ
14 a prima facie case in support of its order and appellants failed to meet
15 their burden of proof; therefore, this appeal should be denied.

16 20.

17 Any Finding of Fact which should be deemed a Conclusion of Law is
18 hereby adopted as such.

19 On the basis of the foregoing Findings of Fact and Conclusions of
20 Law, the Pollution Control Hearings Board issues this

21 ORDER

22 The appeal of appellants herein is denied, and the decision of
23 respondent to issue the order dated May 27, 1971, under Docket
24 No. DE 71-112 is in all respects affirmed.

25
26 FINDINGS OF FACT,
27 CONCLUSIONS OF LAW AND ORDER

1 DONE at Lacey, Washington this 7th day of January, 1975.

2 POLLUTION CONTROL HEARINGS BOARD

3 Walt Woodward
4 WALT WOODWARD, Chairman

5 W. A. GISSBERG
6 W. A. GISSBERG, Member

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